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ABSTRACT

This study investigated the relationship between preservice teachers' dominant intelligence(s) and picture book preferences. Participants completed the quiz, "Where Does Your True Intelligence Lie?" to determine their dominant intelligence(s). They also reviewed and ranked 21 picture books, chosen to represent each of the seven intelligences, according to personal preference. Participants provided a written explanation for their first and last choices. Completed instruments were individually analyzed to identify relationships between intelligences and book choices.

Musical-rhythmic intelligence was the most prevalent among this group, though book titles representing this intelligence were not among the most popular. The two books that were overwhelmingly favored by participants represented interpersonal intelligence. Beyond universal commonalities in first and last choices, there were only minimal similarities among the book choices of participants with the same dominant intelligence. Dominant intelligence did not have as much influence on book choice as did prior personal experiences with the book. The predominant factor influencing participants' selection of a favorite book was pleasant childhood memories associated with reading it. Visual appeal and familiarity with the book or the author also prompted early selection. Two appendixes present the list of book choices and participants' first and last book choices. (SM)

Running head: Does Dominant Intelligence Influence Book Choices?

Preservice Teachers' Book Choices: Does Dominant Intelligence Influence Selection?

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### Abstract

Intelligence is defined as the “ability to find and solve problems and create products of value in one’s culture” (Campbell, 1992, p. 197). Howard Gardner states that people have “different cognitive strengths and contrasting cognitive styles” (Gardner, 1993, p. 6), indicating that we have dominant intelligences and dormant ones. Rather than promoting a single multiple intelligence approach, Gardner (1999) suggest that if differences among students are valued and taken seriously, that it should have implications for how material is presented to students. Although Gardner (1997) recognizes that “MI is not a quick fix”( p. 20), considering the multiple intelligences when establishing a classroom library can positively influence students’ interaction with and responses to literature, thus, creating meaningful connections and deeper understandings. This study investigated the relationship between preservice teachers’ dominant intelligence(s) and picture book preferences.

Preservice teachers (n=132) completed the quiz *Where Does Your True Intelligence Lie?* (NEA, 1996) for the purpose of determining their dominant intelligence(s). Each participant also reviewed and ranked 21 picture books, chosen to represent each of the 7 originally identified intelligences (Nicholson-Nelson, 1998), according to personal preference. In addition, participants provided a written explanation for their first and last choices.

Completed instruments were individually analyzed by two researchers for the purpose of identifying relationships between intelligences and book choices. Beyond universal commonalities in first and last choices, there were only minimal similarities among the book choices of participants with the same dominant intelligence. Dominant intelligence did not appear to have as much influence on the book choices of preservice teachers as their prior personal experiences with the books.

### Preservice Teachers' Book Choices: Does Dominant Intelligence Influence Selection?

Harvard professor Howard Gardner (*Art, Mind, and Brain: A Cognitive Approach to Creativity; Frames of Mind: The Theory of Multiple Intelligences; Multiple Intelligences: The Theory in Practice*) asserts that "All human beings have at least eight different intelligences" (Gardner, 1999, p. 42). Gardner (1999) continues by stating that "no two people have exactly the same profile of intelligences." (p. 42) indicating that people possess both dominant intelligences and dormant ones. Multiple intelligences is a psychological theory about the mind based on scientific research in fields ranging from psychology to anthropology to biology (Gardner, 1999).

In his initial work on Multiple Intelligence (MI) Theory, Gardner (1983) identified seven intelligences -- verbal-linguistic, logical-mathematical, visual-spatial, musical-rhythmic, bodily-kinesthetic, interpersonal, intrapersonal -- for which societal value and physical brain evidence exist. Later, Gardner (1995) added an eighth intelligence (naturalistic) to this list. Therefore, teachers who seek to assist students in more fully developing their unique strengths and talents may choose to address all of the multiple intelligences as part of the students' educational experience.

Combining MI theory with classroom literature selections offers windows of opportunity that enable all learners to successfully interact with books (Nicholson-Nelson, 1998). Selecting literature that emphasizes each of these intelligences , as well as offering opportunities for students to complete response activities that accentuate their dominate intelligence, will provide a means for all students to productively experience quality children's literature in meaningful and relevant contexts. The purpose of this study was to investigate the relationships between preservice teachers' dominant multiple intelligence(s) and picture book preferences.

Specifically, the research attempted to determine the following about preservice teachers' book choices: 1) which dominant intelligence(s) are most prevalent among preservice teachers; 2) which titles appearing on the "Book Choices" survey do preservice teachers find most appealing; 3) which factors influence preservice teachers' book choices; and 4) which, if any, relationships exist between preservice teachers' dominant intelligences and their book choices.

### Method

#### Participants

Undergraduate students ( $n=132$ ) attending a large, regional university in the south participated in the study. All participants were junior and senior level students who had been officially admitted to the teacher education program and were enrolled in either their first or second semester block of teaching field courses.

Of the 132 participants, 126 (95%) were female, and 6 (5%) were male. A total of 121(92%) participants were European-Americans. The remaining 11 (8%) were African-Americans.

#### Instruments

The quiz "Where Does Your True Intelligence Lie?" (National Education Association, 1996) and a "Book Choices" survey developed by the researchers (see Appendix A) were used to obtain data for this study. The quiz, consisting of 35 items, was designed to help individuals identify their areas of strongest intelligence. The following directions appeared at the top of the quiz: "Read each statement. If it describes a characteristic that you possess and sounds true for the most part, write a "T" in the blank provided. If the statement doesn't accurately describe you, mark an "F." If the statement is sometimes true and sometimes false, leave it blank." To score

the quiz, the five items related to each of the seven intelligences were identified. A total of four in any category indicates strong ability. For the purpose of this study, dominance in a single area of intelligence was determined by a score of five in only one area or a high score of four in only one area.

Titles appearing on the "Book Choices" survey were selected from those identified in Developing Students Multiple Intelligences (Nicholson-Nelson, 1998) as representing each of Gardner's seven intelligences. Three picture books were chosen for each area of intelligence. An effort was made to provide diversity, even within each intelligence. Duplication of authors/illustrators was avoided and a variety of genres, including poetry, folklore, informational books, fantasy, historical fiction, contemporary realistic fiction, and multicultural literature, were offered. Participants were instructed to rank the books listed in order of preference with 1 being the most appealing and 21 being the least appealing. In addition, they were asked to provide their reasons for their first and last choices.

#### Data Collection and Analysis

After completing the "Where Does Your True Intelligence Lie?" quiz, participants were exposed to all 21 of the books appearing on the "Book Choices" survey and provided with the opportunity to individually examine the books prior to ranking their choices. Response to both the quiz and survey was voluntary.

Then, the quizzes were scored and sorted into areas of dominance. Results of the quizzes revealed that many (51) participants exhibited intelligence in more than one area. The scores of 39 participants revealed strength in two areas. Ten participants evidenced strength in three areas, while 2 scored high in four areas of intelligence. Ten participants had no predominant

intelligence. The majority of participants, however, possessed scores identifying one area of intelligence as being more dominant than any of the others. These 71 individuals displayed dominance in all seven of Gardner's original areas of intelligence and were distributed as follows: 29 musical, 14 logical-mathematical, 13 intrapersonal, 6 interpersonal, 5 bodily kinesthetic, 2 linguistic and 2 visual-spatial. Only those participants identified as having a single dominant area of intelligence were considered further. This group included 61 European-American females, 6 African-American females, and 4 European-American males.

The first and last book choices for the 71 participants identified as having a dominant area of intelligence were analyzed by the two researchers for the purpose of determining patterns and similarities. Respondents' written statements providing the justification(s) for their selections were also examined. Following a collaborative analysis of the researchers' notes, initial findings were formulated and discussed. Based on these findings, further analysis to include the top five choices of each participant was conducted.

### Results

Musical-rhythmic intelligence was most prevalent among this group of preservice teachers with 29 of the 71 participants (40%) exhibiting dominance in this area. Fourteen (20%) preservice teachers scored the highest in logical-mathematical intelligence, while 13 (18%) scored the highest in intrapersonal intelligence.

Initial findings (See appendix B) revealed that two of the 21 books were overwhelmingly favored by participants. The Giving Tree by Shel Silverstein was selected as participants first choice 20 times (28%), while 9 (13%) participants ranked Love You Forever by Robert Munsch as their favorite. Similarly, Domino Addition by Lynette Long, which ranked twenty-first 26

times ( 37%) , was the participants least favorite book while Math Curse by Jon Scieszka was ranked last seven times (10%).

Seven of the 20 participants who selected The Giving Tree as their first choice explained that it had been one of their favorites as a child while three cited having fond childhood memories related to the book. For example, one participant stated “The Giving Tree was one of my favorite childhood books. It reminds me of my mother . . .” Likewise, ten participants who selected this book as their first choice referenced the book’s theme of “giving to others” as influential in their decision. As stated by one respondent, the book “has a deep message that is appealing but told in such a simple way.” Three selected the book because of its author. Love You Forever was selected as a first choice by all 9 respondents due to the sentimental feelings it evoked surrounding the love between a mother and child.

Domino Addition was rated as the least favorite by 12 respondents who found the book unappealing. Their reasons ranged from “there is no story,” “it has no appeal” and is “boring.” Ten respondents did not find this book pleasing due to its mathematical content, making such statements as “I do not care for math too much.”, “I do not like books with math concepts.”, and “Math isn’t interesting to read about.” However, three individuals did recognize the value of this book in teaching a math lesson, explaining that “while this book is boring to read, it does have its place in a math lesson.” The Math Curse was selected as a last choice by two individuals who found it “too long,” three participants who described it as “confusing” and “too complicated to understand” and two who simply “do not like anything to do with math.”

Beyond these universal commonalities in first and last choices, there were some minimal relationships among the book choices of participants with the same dominant intelligence. For

the 14 participants identified as being dominant in logical-mathematical intelligence, 5 (36%) selected Math Curse as one of their top five choices. Both participants dominant in visual-spatial intelligence selected a title from the visual-spatial category in their top five choices. Two out of the five (40%) participants dominant in bodily-kinesthetic intelligence chose a title from the bodily-kinesthetic category among their top five selections. Book titles from the category of musical-rhythmic intelligence appeared as a top five choice for 14 of the 29 (48%) participants with this area as their dominant intelligence. Nine (69%) of the participants dominant in intrapersonal intelligence selected the following intrapersonal titles in their top five choices: I Like Me (7 times), A Chair for my Mother (3 times), and Author's Chicken Pox (3 times). All six participants dominant in interpersonal intelligence selected interpersonal books -- The Giving Tree (5 times) and Love You Forever (4 times) -- among their top five choices.

#### Discussion

Although musical-rhythmic intelligence was most prevalent, dominance in each of Gardner's seven intelligences was identified among the preservice teachers who participated in this study. While preservice teachers dominant in musical-rhythmic intelligence comprised the largest portion of the participants, book titles representing this intelligence were not among the most popular. Rather, the interpersonal books were most often selected as favorites. The predominant factor influencing participants' selection of their favorite book was pleasant memories associated with reading the book in childhood. This influence appeared not only in the two most common first choice picks, The Giving Tree and Love You Forever, but also in the reasons offered by other participants in this study. Results further indicated that the book's theme, the book's visual appeal, and the participant's familiarity with the book or its author often

prompted early selection. Dominant intelligence did not appear to have as much influence on the book choices of preservice teachers as their prior personal experiences with the books. It is noted, however, that these findings may be varied with alternate book titles.

Further, it is recommended that additional research be conducted to investigate the influence of dominant intelligence on preservice teachers preferred instructional approach as well as the influence of their early literacy experiences on their book choices for classroom use.

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**Appendix A**  
**BOOK CHOICES**

**Directions:**

After carefully examining the 21 books listed below, rank order (1 being the most appealing and 21 being the least appealing) your favorite books.

**RANK****BOOK TITLE**

- |       |   |
|-------|---|
| _____ | <i>A Chair for My Mother</i> by Vera Williams                           |
| _____ | <i>Art Lesson</i> by Tomie dePaola                                      |
| _____ | <i>Arthur's Chicken Pox</i> by Marc Brown                               |
| _____ | <i>Chicka Chicka Boom Boom</i> by Bill Martin, Jr. and John Archambault |
| _____ | <i>Domino Addition</i> by Lynette Long                                  |
| _____ | <i>Faithful Friend, The</i> by Robert D. San Souci                      |
| _____ | <i>Frederick</i> by Leo Lionni  |
| _____ | <i>Giving Tree, The</i> by Shel Silverstein                             |
| _____ | <i>Handmade Alphabet, The</i> by Laura Rankin                           |
| _____ | <i>Honey, I Love</i> by Eloise Greenfield                               |
| _____ | <i>How Much Is A Million?</i> By David M. Schwarz                       |
| _____ | <i>I Like Me</i> by Nancy Carlson                                       |
| _____ | <i>Kites Sail High: A Book About Verbs</i> by Ruth Heller               |
| _____ | <i>Love You Forever</i> by Robert Munsch                                |
| _____ | <i>Miss Nelson Has A Field Day</i> by Harry Allard                      |
| _____ | <i>Mirette On The High Wire</i> by Emily McAully                        |
| _____ | <i>Math Curse</i> by Jon Scieszka and Lane Smith                        |
| _____ | <i>Tar Beach</i> by Faith Ringgold                                      |
| _____ | <i>Three Little Pigs, The</i> by Paul Galdone                           |
| _____ | <i>Wheels On The Bus, The</i> by Maryann Kovalski                       |
| _____ | <i>Where The Wild Things Are</i> by Maurice Sendak                      |

## Appendix B

## Participants First and Last Book Choices

Dominant Intelligence	First Choice Titles	Number of Times Selected	Last Choice Titles	Number of Times Selected
Musical	<u>The Giving Tree</u> <u>Love You Forever</u> <u>Where the Wild Things Are</u> <u>Honey, I Love Honey, I Love</u> <u>I Like Me</u> <u>Handmade Alphabet</u> <u>Art Lesson</u> <u>Frederick</u> <u>Arthur's Chicken Pox</u> <u>A Chair For My Mother</u> <u>Math Curse</u>	5 5 4 3 3 2 2 1 1 1 1	<u>Domino Addition</u> <u>Mirette on the High Wire</u> <u>Love You Forever</u> <u>Wheels on the Bus</u> <u>Math Curse</u> <u>Tar Beach</u> <u>Frederick</u> <u>Three Little Pigs</u> <u>Kites Sail High</u> <u>Handmade Alphabet</u>	10 3 3 2 2 2 1 1 1 1 1
Total		29		
Logical-mathematical	<u>The Giving Tree</u> <u>Honey, I Love Honey, I Love</u> <u>Love You Forever</u> <u>Where the Wild Things Are</u> <u>The Faithful Friend</u> <u>Miss Nelson Has a Field Day</u>	4 3 2 2 1 1	<u>Domino Addition</u> <u>Frederick</u> <u>Tar Beach</u> <u>Math Curse</u> <u>Three Little Pigs</u> <u>How Much Is A Million?</u> <u>Chicka Chicka Boom Boom</u> <u>Wheels on the Bus</u> <u>Love You Forever</u> <u>Handmade Alphabet</u>	5 1 1 1 1 1 1 1 1 1
Total		14		

### Participants First and Last Book Choices (cont.)

Dominant Intelligence	First Choice Titles	Number of Times Selected	Last Choice Titles	Number of Times Selected
Intrapersonal	<u>The Giving Tree</u> <u>Love You Forever</u> <u>The Art Lesson</u> <u>I Like Me</u> <u>Math Curse</u> <u>The Faithful Friend</u> <u>Miss Nelson Has A Field Day</u> <u>Handmade Alphabet</u> <u>Three Little Pigs</u>	3 2 2 1 1 1 1 1 1	<u>Domino Addition</u> <u>Wheels on the Bus</u> <u>Math Curse</u> <u>Love You Forever</u> <u>Tar Beach</u> <u>Chicka Chicka Boom Boom</u> <u>Where the Wild Things Are</u> <u>Handmade Alphabet</u>	4 2 2 1 1 1 1 1
	Total	13		
Interpersonal	<u>The Giving Tree</u> <u>A Chair for My Mother</u>	5 1	<u>Domino Addition</u> <u>How Much Is A Million?</u> <u>Math Curse</u> <u>The Faithful Friend</u>	3 1 1 1
	Total	6		
Bodily Kinesthetic	<u>Love You Forever</u> <u>The Giving Tree</u> <u>A Chair For My Mother</u>	3 1 1	<u>Domino Addition</u> <u>Math Curse</u> <u>Kites Sail High</u> <u>Where the Wild Things Are</u>	2 1 1 1
	Total	5		
Linguistic	<u>Frederick</u> <u>Tar Beach</u>	1 1	<u>Domino Addition</u>	2
	Total	2		
Visual-spatial	<u>The Giving Tree</u>	2	<u>How Much Is A Million?</u> <u>Tar Beach</u>	1 1
	Total	2		
	Total	71		



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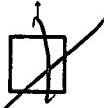
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